Calculate triangle perimeters and areas using the available measurements, including Heron’s rule.

Key skills | Free preview

Learning target: Calculate triangle perimeters and areas using the available measurements, including Heron’s rule.

A triangle area calculation should use measurements that are actually available. A known perpendicular height gives half base times height; two sides with their included angle give the sine-area formula. If all three sides are known, Heron’s formula uses the semiperimeter. First check the triangle inequality so the side lengths describe a real triangle.

Try the mathematics

Task 1. A triangle has sides 13 m, 14 m and 15 m. Check the triangle inequality, find the perimeter and use Heron’s formula to calculate area.

Continue with the full worksheet

The complete resource has 2 focused task sets and substantive worked solutions. Use an exercise book or print the A4 worksheet. This preview shows the first task without its full solution.

Find this resource: https://resources.aspiretopowerlearning.com.au/vce/skills/aspire-internal-gm-u2-o1-aos4-ks-03/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 2; Outcome 1; Key skills; Space, measurement and applications of trigonometry; bullet 3; p. 40.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u2-o1-aos4-ks-03. This is an internal identifier, not an official VCAA code.

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